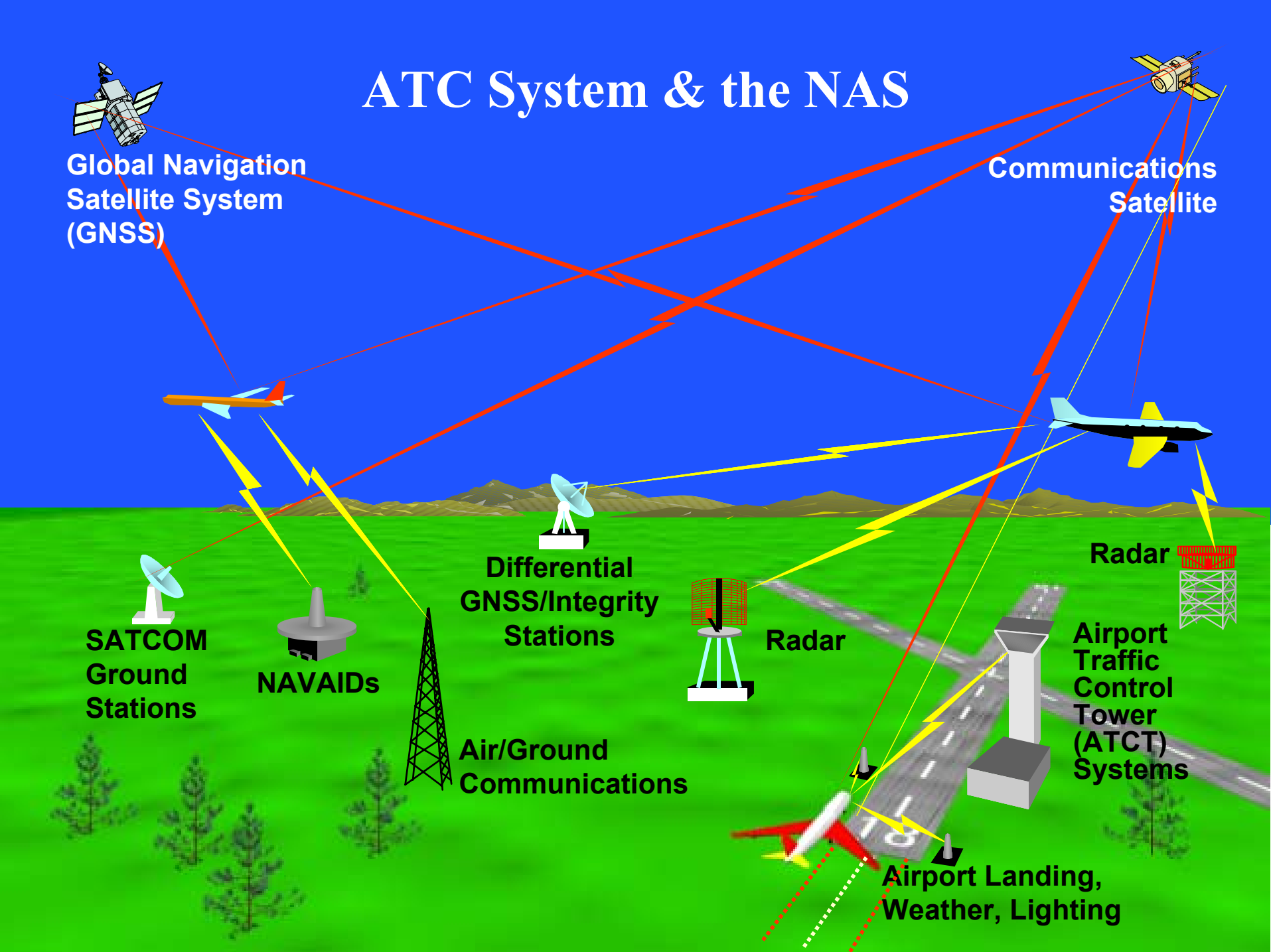
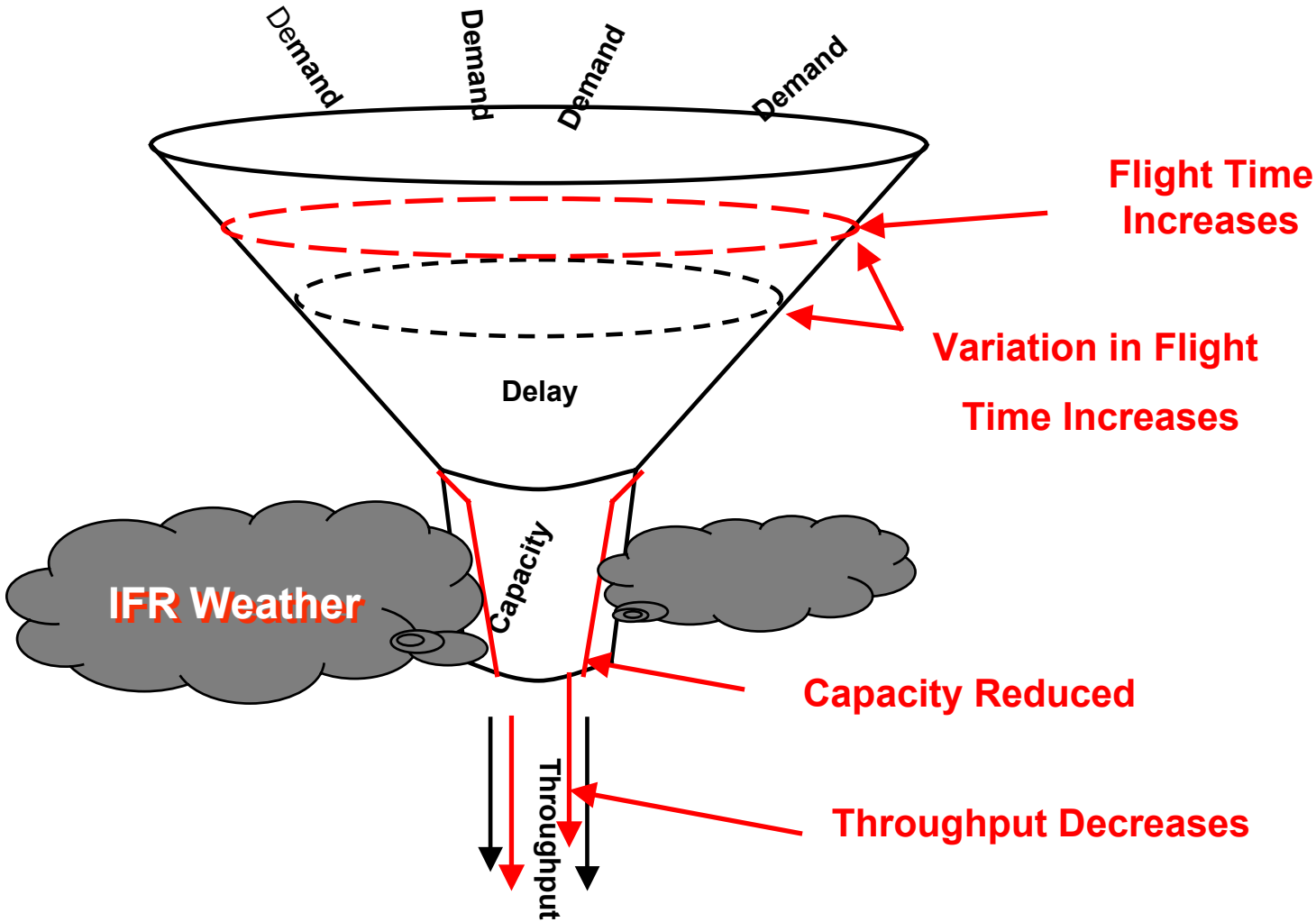
NAS OPERATIONAL EVOLUTION PLAN

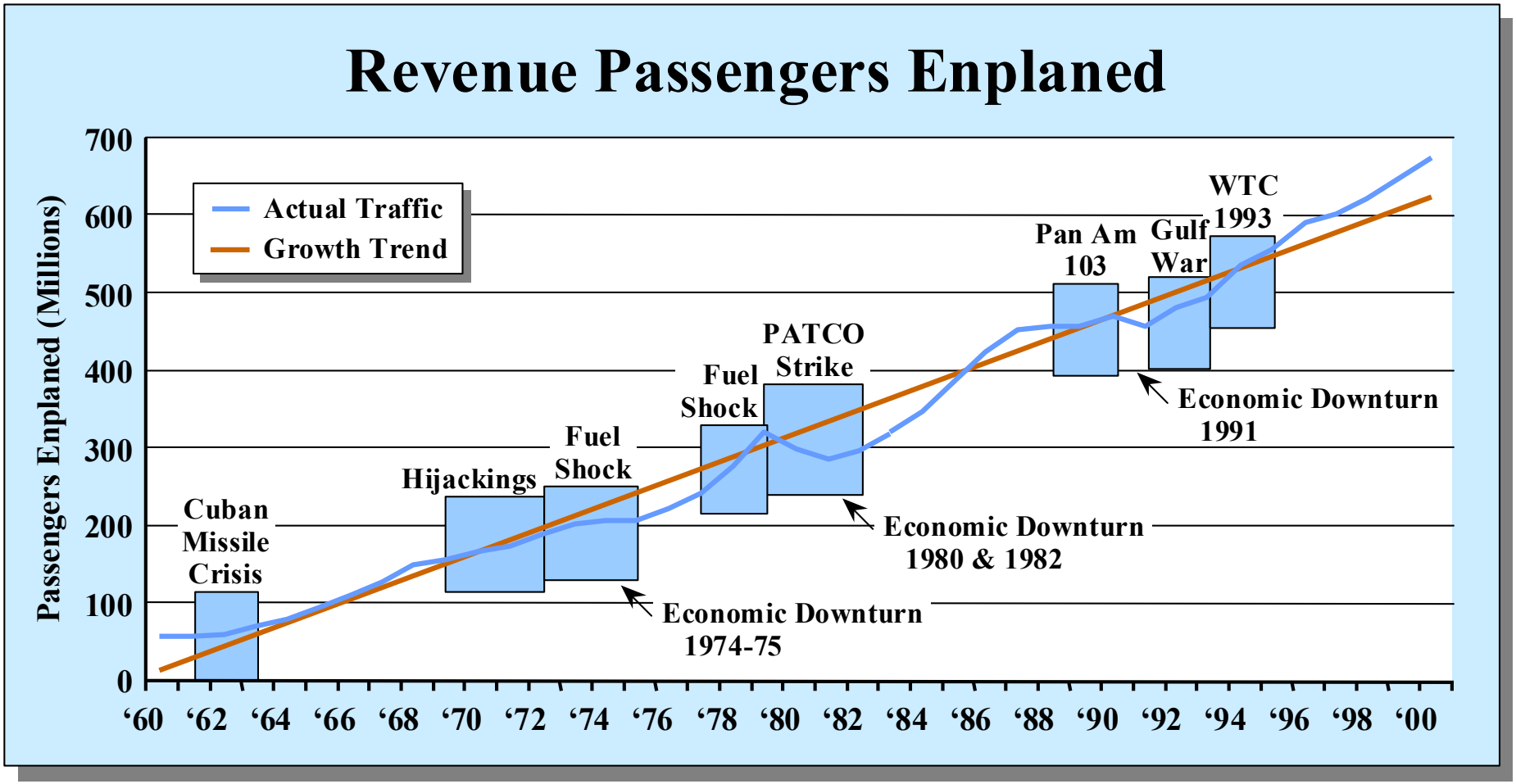
AIR TRAFFIC CONTROL ASSOCIATION


ATC System & the NAS
Global Navigation Satellite System (GNSS)
Communications Satellite
SATCOM Ground Stations
NAVAIDs
Differential GNSS/Integrity Stations
Air/Ground Communications
Radar
Radar
Airport Traffic Control Tower (ATCT) Systems
Airport Landing, Weather, Lighting

These Measures Interact - IFR Weather Example



Economics as an External Driver
Air Travel Trend 1960-2000

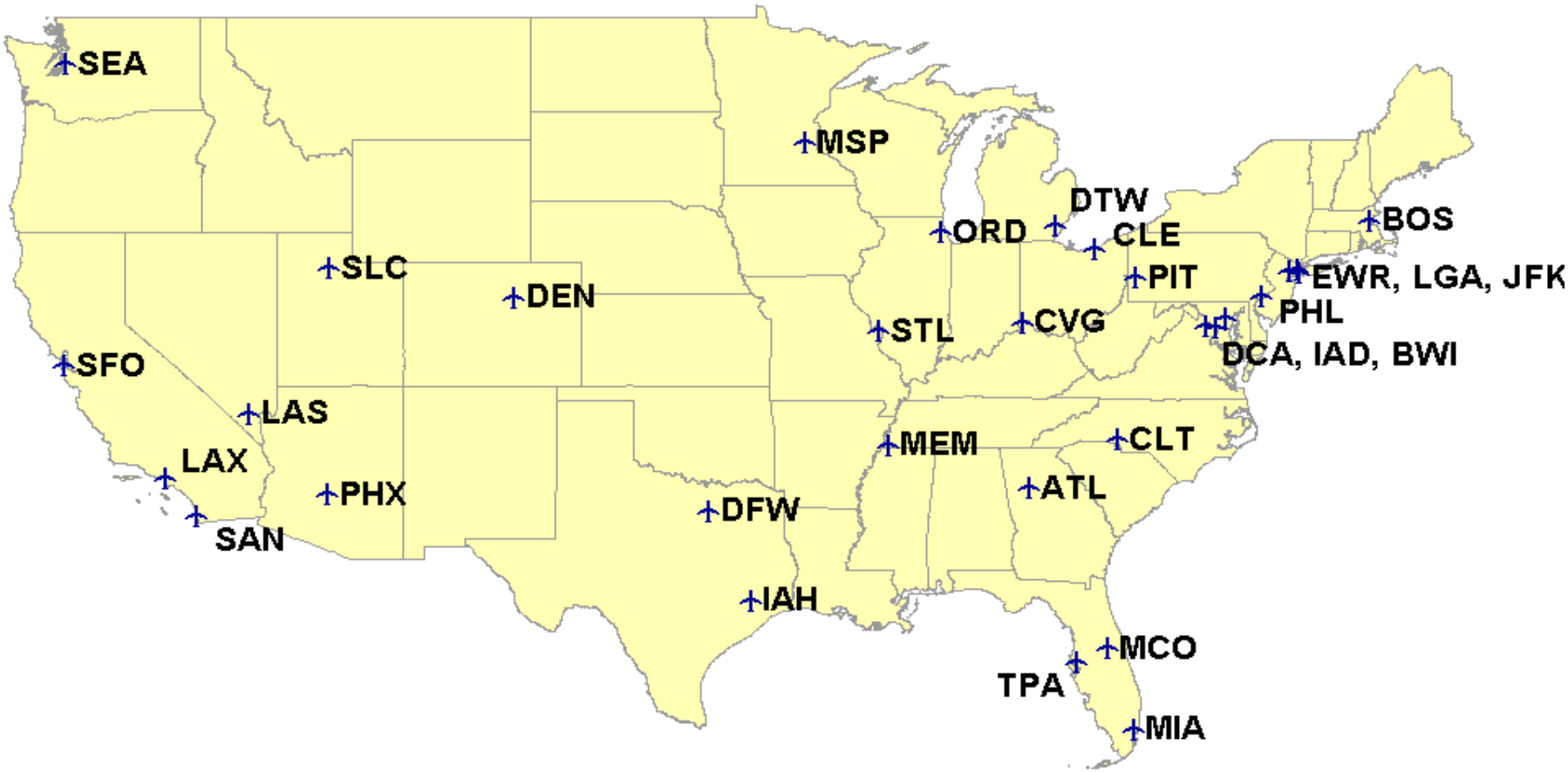


Source: Landrum & Brown, as reported in "Embattled Airlines Gird For Business Unusual", *Aviation Week & Space Technology*, November 19, 2001, pp 48-51.

Air Traffic Today

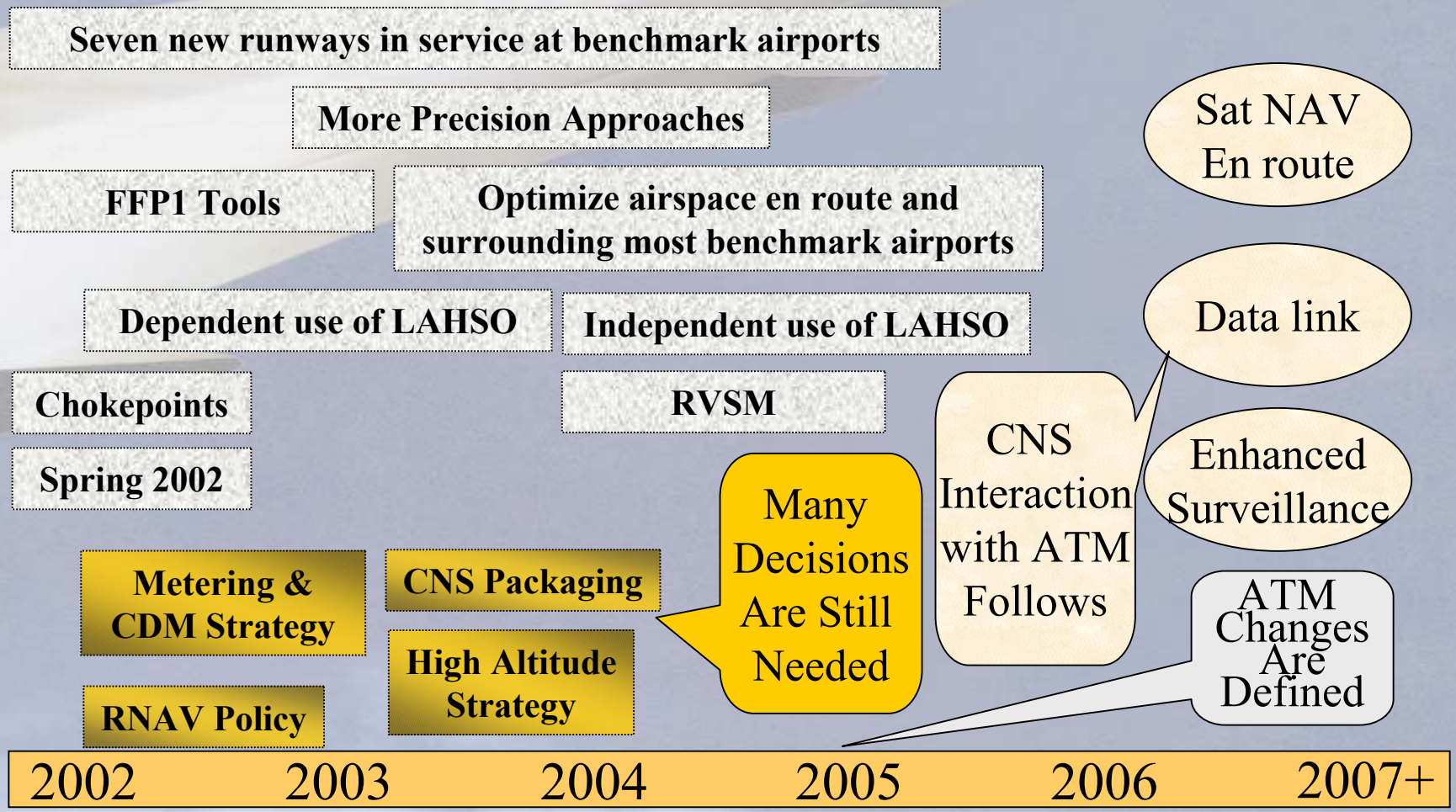
- **Eight months after 9/11, air traffic is rebounding, but airlines are flying fewer passengers than they were 1 year ago.**
- **Traffic across the NAS is currently down about 7-8% and is progressively increasing.**
- **Operations are rebounding more rapidly in the mid-west**
- **Traffic this summer is expected to be close to 2001 levels, however passenger volume will remain lower.**
- **Airlines have increased their use of smaller aircraft, including regional jets. Increased regional jet activity may pose new challenges to the NAS that the FAA and industry must work collaboratively to manage.**

31+1 Benchmark Airports

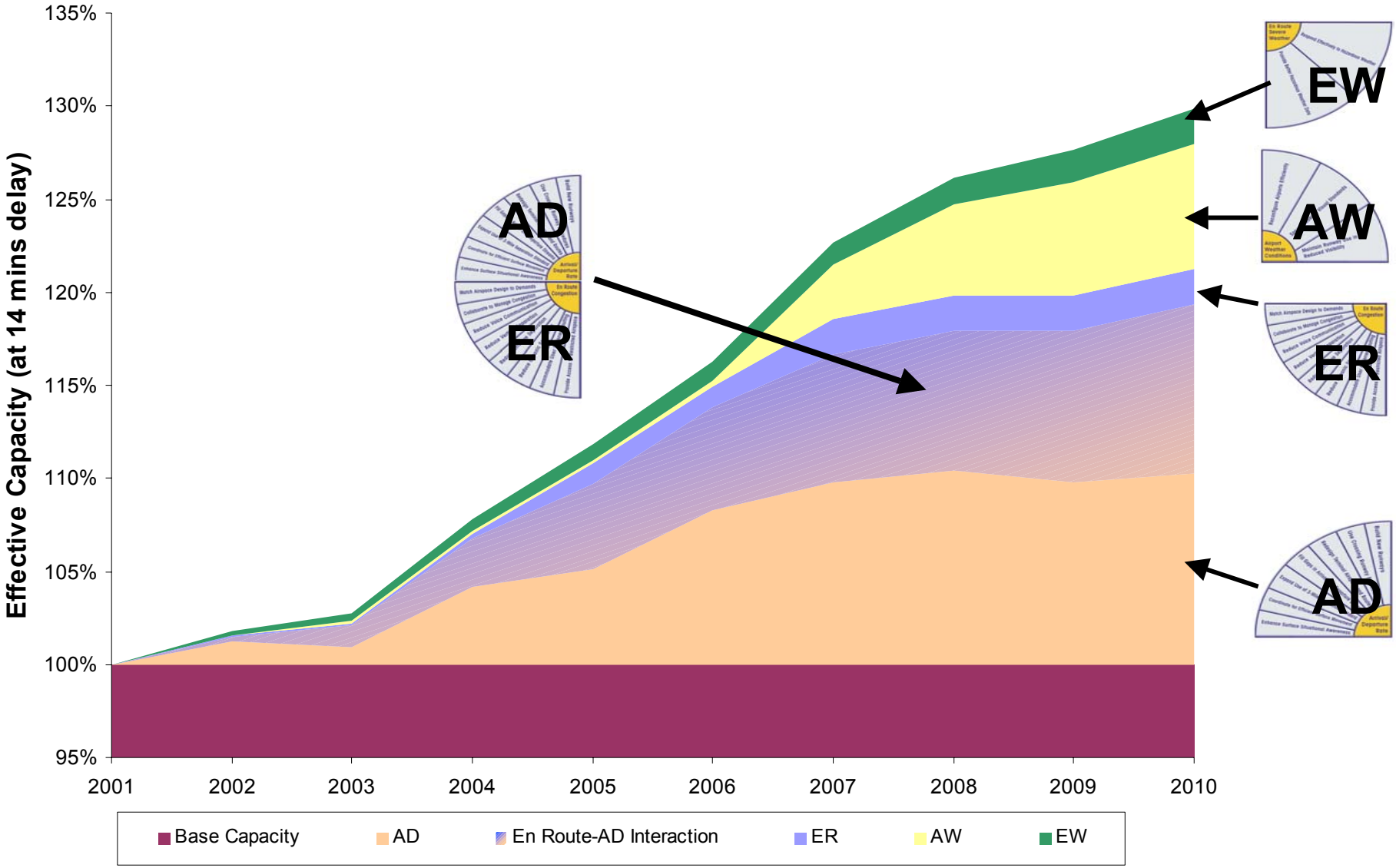


OEP Solutions

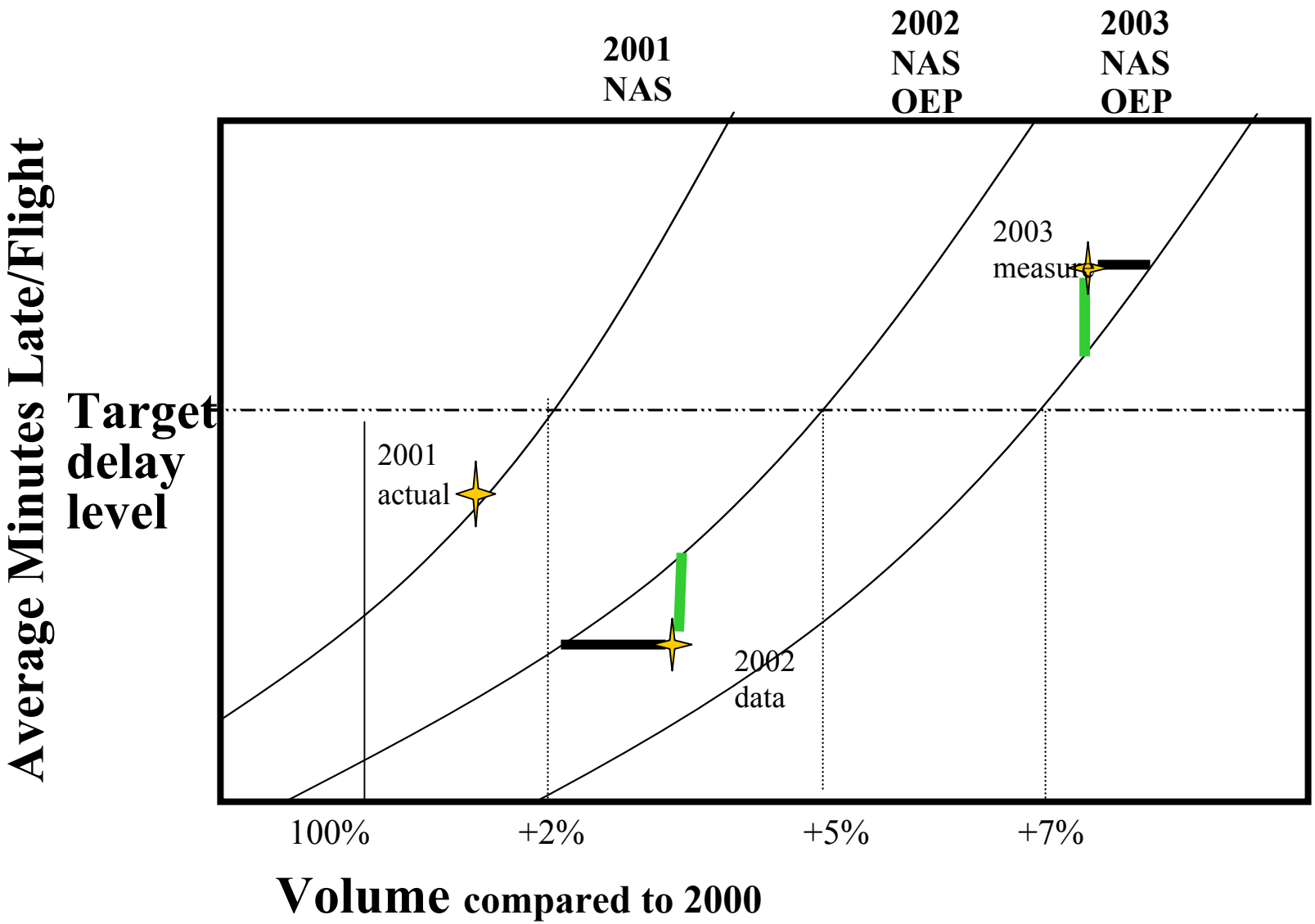
NAS Operational Evolution At A Glance



System Wide Growth In Capacity at 14 Minutes of Delay Per Flight



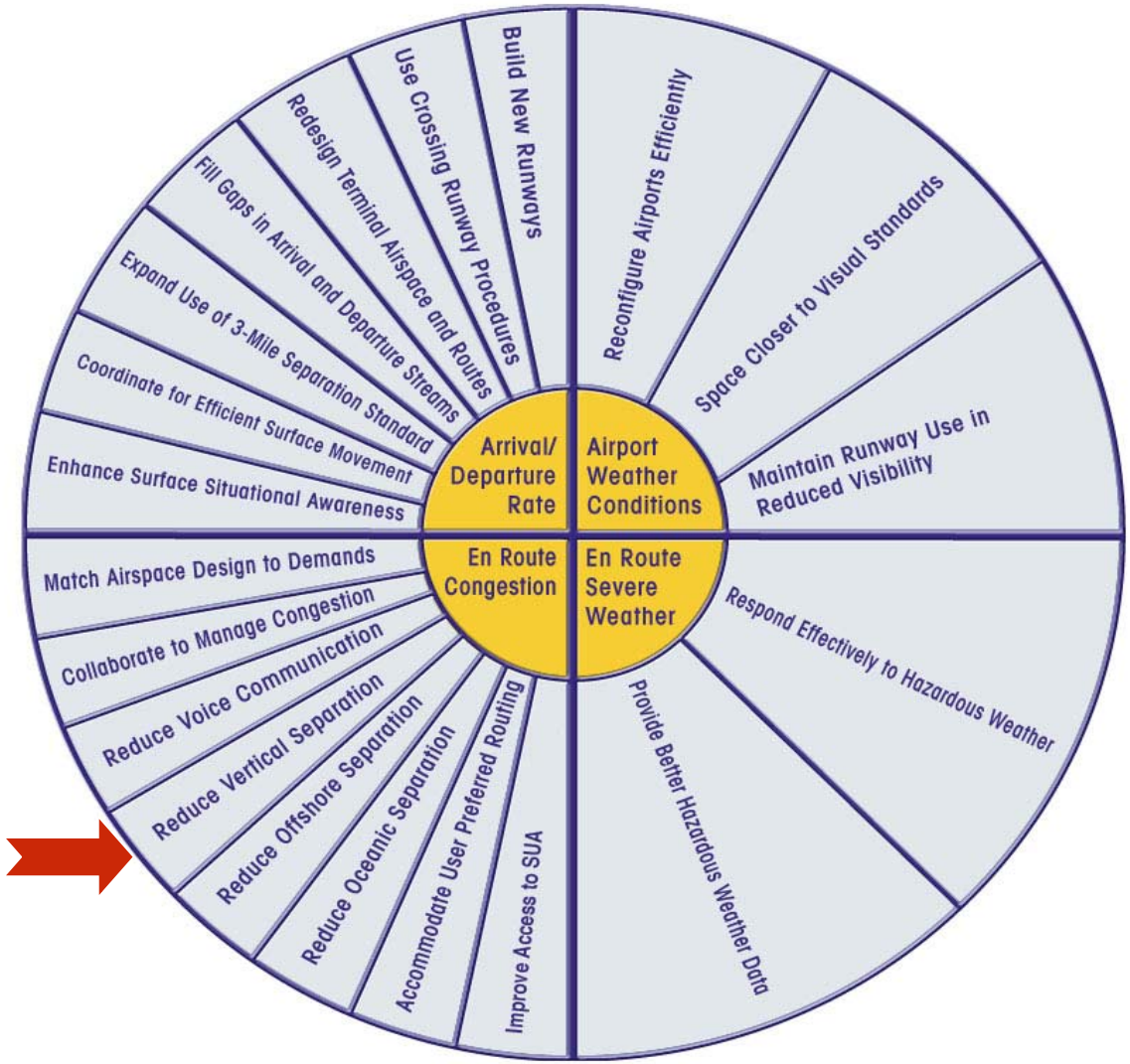
Measuring Effective Capacity
Comparison of Actuals to Projections



OEP Primary Offices of Delivery

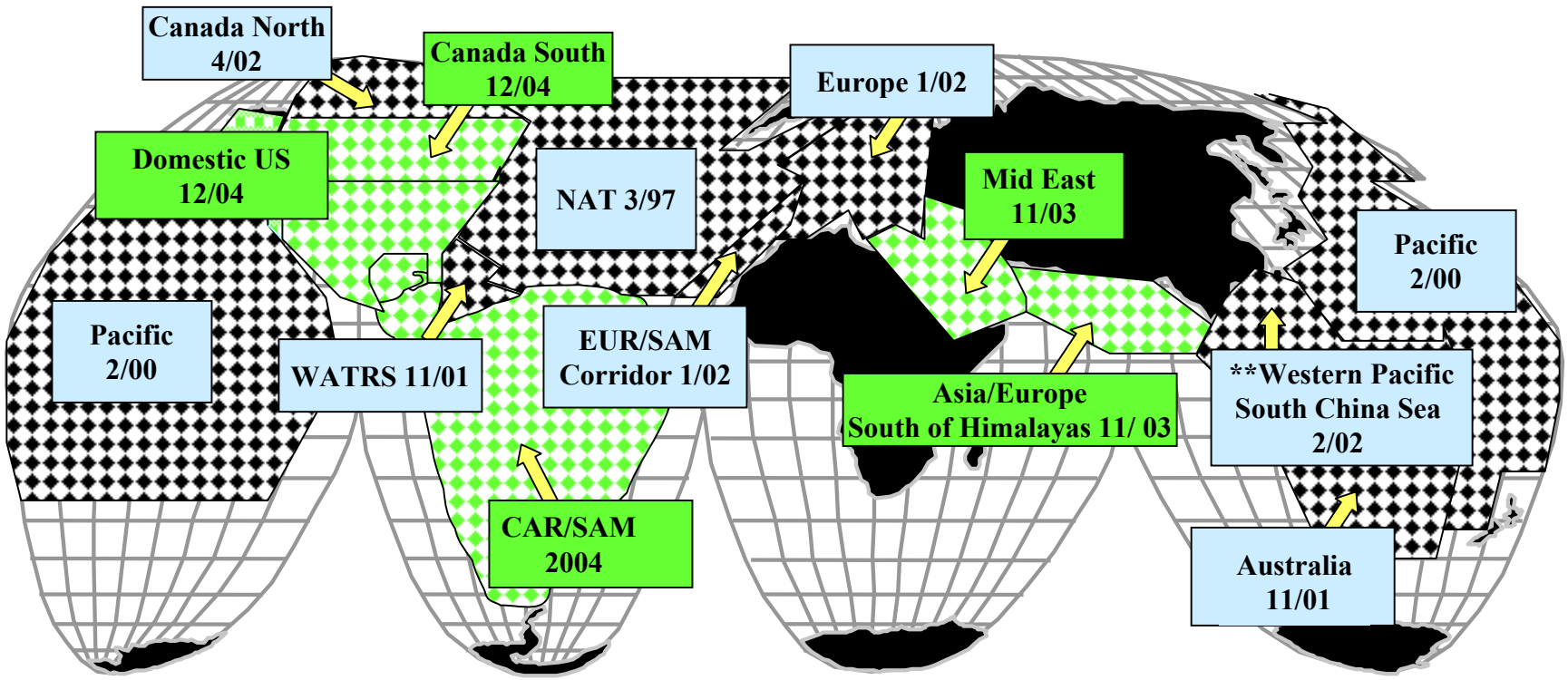
Roy Grimes and Howard Swancy (for Nick Sabatini)	**ER4 AD2**
Mike Cirillo	**AW1/2 ER5/6/8**
Paul Galis	**AD1**
Sabra Kaulia	**AD3/5 ER1**
John Thornton	**AD4 ER3/7**
John Staples	**AW3**
John White (for Jack Kies)	**ER2 EW1/2**
Wilson Felder (for Bill Voss)	**AD6/7**

OEP Primary Offices of Delivery



Roy Grimes **ER4**
for
Nick Sabatini

RVSM Implemented & Planned



Implemented Planned

** Western Pacific/South China Sea

February 2002 Implementation
Bangkok, Ho Chi Minh, Kota Kinabalu, Kuala Lumpur, Manila, Phnom Penh, Sanya, Singapore, Taipei

October 2002 Implementation
Hanoi, Hong Kong, Jakarta, Ujung Pandang, Vientiane

Program Development

- Dialogs/discussions begun in Fall 2000
- Industry meetings in Feb and May 2001
- Priority project in NAS Operational Evolution Plan (Paragraph ER-4)
- Notice of Proposed Rulemaking to be published next week with 90 day comment period

Proposed/Planned Objectives

- Implement RVSM between FL 290 - 410 in contiguous 48 states, Alaska and Gulf of Mexico airspace---where FAA provides air traffic services
- Implement in December 2004
- FAA coordinating with Mexico, Canada and Central/South America

Benefits 2004 - 2018

- **Fuel Savings Benefits 2004 – 2018:**
  - **$5.8 billion**
  - **9/1 benefit/cost ratio**
  - **$371 m. first year savings---1.5% annual increase**
- **Enhanced ATM flexibility**
- **Enhanced sector throughput**
- **Reduced controller workload/potential for error**
- **Reduction in conflict points**
- **Enhanced enroute capacity**

Program Elements/Costs 2002 - 2016

- **$634 million costs:**
  - RVSM aircraft engineering
  - Pilot and, if applicable, dispatch program revision
  - Monitoring/assessment of aircraft altitude-keeping performance
  - Air traffic system modification and controller training

Projected DRVSM Operations

- By 12/2004, project 90-94% of flights to be conducted by RVSM approved aircraft

- Civil aircraft not RVSM approved may:
  - Operate at/below FL 280
  - If capable, operate at/above FL 430, traffic permitting

RVSM

Conclusion

- **FAA committed to successful RVSM implementation in the National Airspace System**

RVSM